

Work Order ID 63926

Friday, November 19, 2010 8:59:01 AM



Page 1

Item ID: D3139-3

Accept



Setup Start



Revision ID:

Item Name: Guard

Stop



Start Date: 11/19/2010 Start Qty: 2.00



Cust Item ID:

Required Date: 11/26/2010 Req'd Qty: 2.00



Customer:

Reference:

Approvals:

Process Plan:

[Signature]

Date: 10-11-19

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3139

Rev B

100

0.00



Prep Line Bender

HandThermo

Memo

0.00

Hand Finishing Thermoforming

Plug in line bender and allow to warm for 5 minutes

B 10-11-23

⑤

PTO →

110

0.00



Cut Sheet

HandThermo

Memo

0.00

Hand Finishing Thermoforming

Cut blanks 3-1/2" x 4-1/2" x 0.125" Lexan

N/A see PTO. 10.11.30

W/O: 63926		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10/11/23	100 110. 130	PARTS cut and holes made on water-jet.	DL	10/11/23	2.	10.11.29	8 10/11/29
10/11/23	130.						

Part No: D3139-3 PAR #: _____ Fault Category: Thermoforming NCR: ☒ Yes No DQA: [Signature] Date: 10/12/02
 Resolution: Scrap Disposition: Scrap QA: N/C Closed: [Signature] Date: 10/12/02

NCR: 63926		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
10/11/25 130	130.	Holes too large to properly countersink. when c'sinking there was no correct size or tip to match the hole size R.C. Tooling	10.11.29	Scrap & replace 2 parts make smaller holes in waterjet program.	10/11/25 DL 10.12.01	8 10/11/25	10.11.29	8 10/11/29
			10/11/22	New c'sink bits ordered & with smaller holes will allow a proper c'sink with out any step in the holes.	N/A			

NOTE: Date & initial all entries

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Cust Item ID:

Required Date: 11/26/2010 Req'd Qty: 2.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

120



Thermoform

Thermoforming Machine

Form on Line Bender

0.00

Memo

0.00

1) Heat the part at 1.0" (on the 4-1/2" length) centered to the element flipping over once.

Bend the soften plastic to 90 degrees

Allow to cool for 1 minute

Place the 1.0" bent angle down on the short side of the line bender and push to the edge. Heat the plastic at this location flipping once then bend the plastic in the opposite direction of the first bend to 90 degrees and let cool for 1 minute.

x2

OK

10/11/23

x4

OK

10/11/25

130



HandThermo

Hand Finishing Thermoforming

Trim & drill

0.00

Memo

0.00

1) Mark the part using dart jig DT9694 and trim the part.

2) Then drill the part using a 0.203" drill bit where the drill holes are marked then countersink as per dwg. D3139-3 and deburr

x4

OK

10/11/25

N/A.

see PTO page 1



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Page 3

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Cust Item ID:

Required Date: 11/26/2010 Req'd Qty: 2.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

140

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

x2

Sh.

10/11/23

x4.

Sh.
10/11/25

150

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8/10/29

(x4)

-3

160

Identify as per dwg & Stock Location: 35

0.00



Packaging

Memo

0.00

Packaging

10/11/29

sf

(x4)

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Page 4

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Cust Item ID:

Required Date: 11/26/2010 Req'd Qty: 2.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

170

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

ck 10/11/30 *[Signature]*
[Signature]

10-11-29

Picklist Print

Friday, November 19, 2010 8:59:05 AM

Page 1

Work Order ID: 63926

Parent Item: D3139-3

Parent Item Name: Guard



Start Date: 11/19/2010

Required Date: 11/26/2010

Start Qty: 2.00

Required Qty: 2.00

Comments: lpp Rev. A New Issue Form In-house 10/11/19 DL verf:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

MLEXS.125-9034-01		Purchased	No			110	sf	112.0000	0.125	0.263158			
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1/8" 9034 Lexan Sheet



10-11-23

Location

Loc Qty

Loc Code

MAT

112

106173

4

106403

12

115861

96

115861

②

DART AEROSPACE LTD	Work Order: 63926
Description:	Part Number: D3139-3
Inspection Dwg: D3134 Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST
THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than "				
Shape Definition				
Texture Retention				
Material imperfections such as bumps, cracks, voids, scratching				

Measured by:

Date:

TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
3.0"		2.99"	✓			
2.25"		2.22"	✓			
1.00"		1.0"	✓			
1.75"		1.74"	✓			
2.20"		2.20"	✓			
Ø 0.203"		0.205"	✓			
0.70		0.80"		✗		ACCEPTABLE 10/11/29

Measured by:

Date:

Audited by:

Date:

Preliminary Approval:

Date:

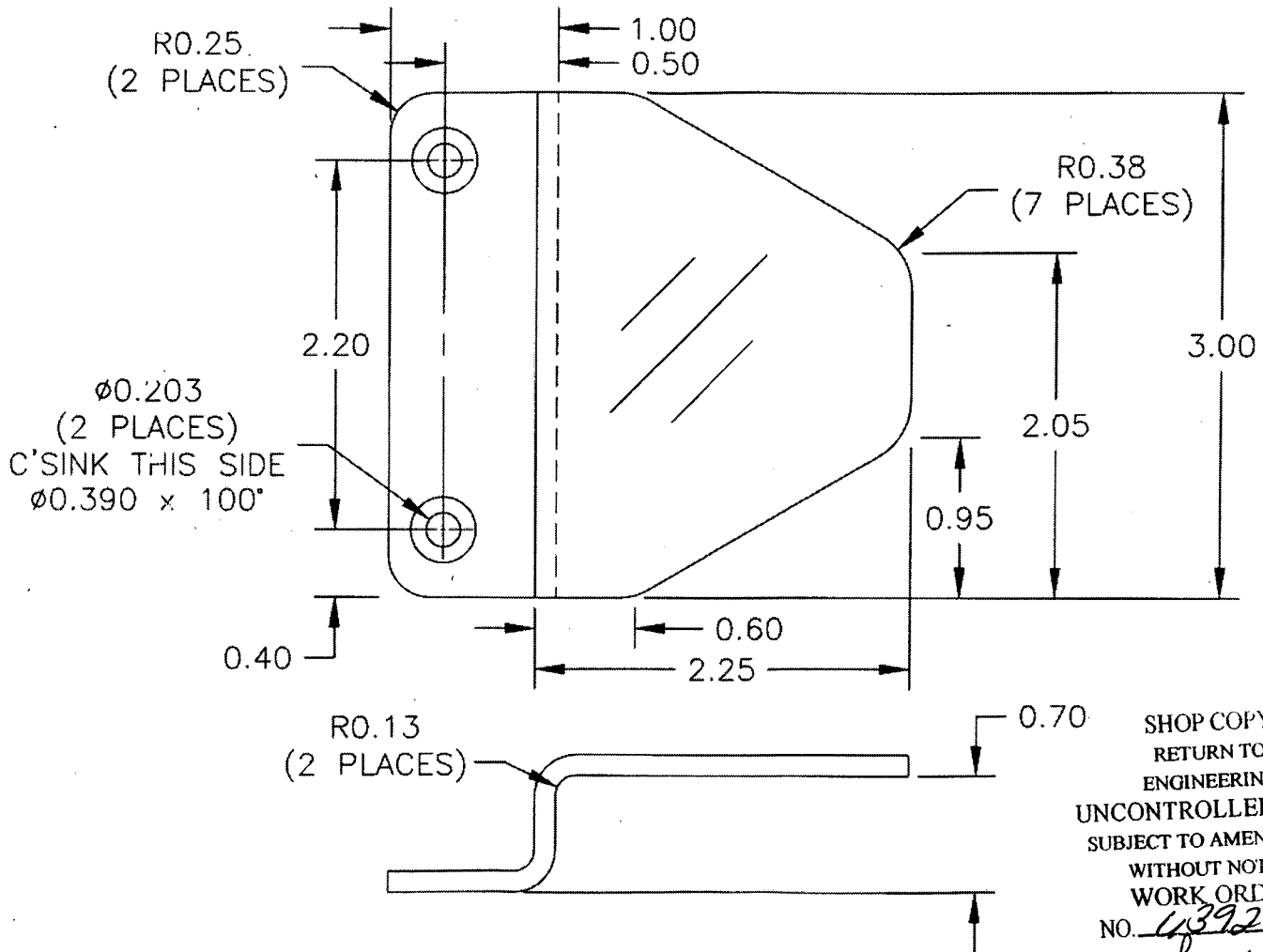
Rev	Date	Change	Revised by	Approved
B	10.04.14	Added preliminary approval	KJ	

10.04.14



DESIGN	DRAWN BY	DART AEROSPACE LTD. HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3139	REV. B SHEET 1 OF 2
DATE 04.10.18		TITLE GUARD	SCALE 1:1
A	02.04.19	NEW ISSUE	
B	04.10.18	ADD PART MARKING	

RELEASED
04.11.23



SHOP COPY
RETURN TO
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UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 43924

BS10-1-19

D3139-1 GUARD

REPLACES PREMIER P/N B30-23000-237/-238

NOTES

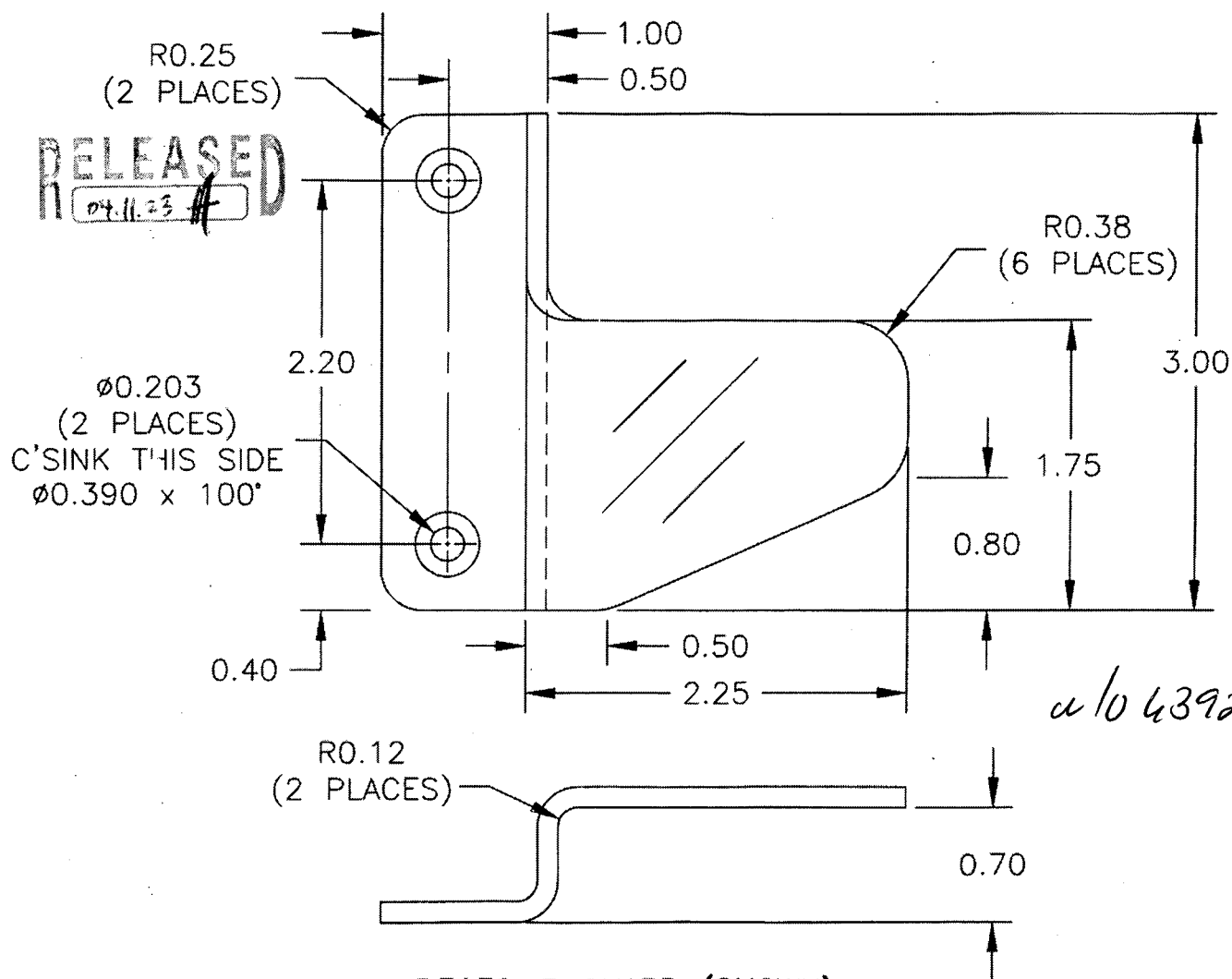
- 1) MATERIAL: 0.125 THICK LEXAN SHEET
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) IDENTIFY WITH DART P/N USING FINE POINT PERMANENT INK MARKER

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DESIGN #	DRAWN BY #	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3139	REV. B SHEET 2 OF 2
DATE 04.10.18		TITLE GUARD	SCALE 1:1



D3139-3 GUARD (SHOWN)
D3139-4 GUARD (OPP)

NOTES

- 1) D3139-3 REPLACES PREMIER P/N B30-23000-239
D3139-4 REPLACES PREMIER P/N B30-23000-240
- 2) MATERIAL: 0.125 THICK LEXAN SHEET
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) IDENTIFY WITH DART P/N USING FINE POINT PERMANENT INK MARKER

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